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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,682	02/17/2006	Sung Kwon Ko	05823.0282	2779

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EXAMINER	
MEHTA, HONG T	

ART UNIT	PAPER NUMBER
1784	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/568,682	KO, SUNG KWON	
	Examiner	Art Unit	
	HONG MEHTA	1784	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to applicant's remarks and amendments filed on May 3, 2010. Claims 1-12 are pending. Claims 13-18 are cancelled.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims 1-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (JP 403083565 A, Abstract) and in view of Choi (KR 2001047790 A, Abstract) and Kang et al. (KR 100228510, applicant submitted art, Machine Translation) and further evidenced by Barrett (Chemistry in Your Environment, 1994)**.

4. **Regarding claims 1, 3, 4, 10, and 12**, Ogawa discloses a method of making health drink, "ginseng preparation" comprising alcohol-extracted concentrated ginseng

extract and vinegar and allowed to stand for a fixed period of time to achieve a palatable taste ('565, Abstract).

5. Ogawa does not disclose the heating step of the ginseng extract and vinegar mixture. Ogawa is silent regarding the ginseng extract with ginsenosides; amount of ginsenoside Rg3 to total ginsenosides and the pH vinegar as cited.

6. However, Kang et al. discloses a process to obtain a ginseng extract comprising ginsenosides (Abstract) by extraction with organic solvent including alcohol and subjecting ginseng for 0.5 hours to 20 hours in presence of acid solution. Kang et al. clearly teaches heat exposure and time of ginseng plant in high temperature of 110°C to 180°C for 0.5 hours to 20 hours to increase the content of ginsenoside components in ginseng extract ('510, page 2; para. 1-8; pg. 3). Furthermore, it is well known that vinegar has a pH value in a range of pH 2.8 as evidenced by Barrett (pg. 29). It would have been obvious to one of ordinary skill in the art to use heating parameters of ginseng to produce ginseng extract with increased inherent ginsenoside components as taught by Kang et al. in the process of Ogawa to produce a health drink comprising ginseng and vinegar with desirable health benefits.

7. Additionally, Choi discloses a method of making a functional vinegar composition comprising extracts of ginseng and white vinegar to contribute to health improvement. Choi discloses ginseng in volume of 30% in the vinegar composition ('790, Abstract). It would have been obvious to one of ordinary skill in the art to use the amount of Choi's ginseng extract in Ogawa's process of making ginseng extract and vinegar composition because Choi clearly teaches the amount of ginseng extract to vinegar is a successful

amount. It would have been obvious to combine Kang's process of extraction ginseng extract and Choi's amount of ginseng extract into Ogawa's process of making health drink for a desirable health benefit upon consumption.

8. **With respect to claims 1 and 2** as Ogawa modified by Kang et al. and Choi uses like materials, ginseng and vinegar; and in a like manner of heating exposure of temperature and time as claimed, it would therefore be expected that the composition of ginsenosides will have the same characteristics claimed, particularly the percentages, absent a showing otherwise.

9. **With respect to claims 10 and 12**, Kang et al. clearly teaches heat exposure and time of ginseng plant in high temperature of 110°C to 180°C for 0.5 hours to 20 hours to increase the content of ginsenoside components in ginseng extract ('510, page 2; para. 1-8; pg. 3). Kang et al. overlaps the instant cited claims, however it would have been obvious to one of ordinary skill to adjust the temperature and time exposure to extract a desirable amount of ginsenosides content in ginseng extract as taught by Kang et al. It would have been obvious to one of ordinary skill in the art to select any portions of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art references, particularly in view of the fact that; "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set percentage ranges is the optimum combination of percentages" *In re Peterson* 65 USPQ2d 1379 (CAFC 2003).

10. **Regarding claims 5 and 6**, Kang et al. discloses plant leaves and tissue of Korean ginseng, American ginseng, Sanqi ginseng and Japanese ginseng ('510, page 6, paragraph 2).

11. **Regarding claims 7, 8 and 9**, Ogawa discloses brewing brown rice vinegar ('565, Abstract).

12. **Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (JP 403083565 A, Abstract), Choi (KR 2001047790 A, Abstract), Kang et al. (KR 100228510, applicant submitted art, Machine Translation) and evidenced by Barrett (Chemistry in Your Environment, 1994) and further in view of Ann (KR 2001055013 A).**

13. Ogawa, Choi, and Kang et al. discloses the claimed invention as discussed above in claim 1.

14. However Ogawa did not disclose heating step as cited in claim 11. However, Ann discloses a method of producing vinegar with red ginseng. Ann discloses a sterilizing step by heating the ginseng vinegar at 60°C to 80°C.
It would have been obvious to one of ordinary skill in the art to use Ann's heating step in Ogawa's process of making ginseng/vinegar composition to ensure food product is properly sterilized from harmful bacteria.

Response to Arguments

15. Applicant's arguments filed May 3, 2010 have been fully considered but they are not persuasive.

16. Applicant argues neither Ogawa nor Choi teaches to heat the ginseng-vinegar mixture to obtain high ginsenoside content. Additionally, Kang does not teach nor suggest the use of vinegar but uses acids to prepare a ginseng composition with resultant saponin content may be relatively low.

17. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Ogawa teaches a method of preparing a ginseng preparation comprising ginseng and vinegar. As noted in above rejection, Ogawa does not teach the heating step as cited, however the Kang reference is relied upon for the teaching that temperature treatment of ginseng would promote desired ginsenoside content in an acidic solution. Ogawa teaches rice vinegar which is considered an acidic solution as emphasized by Barnett. It would have been obvious to one of ordinary skill in the art to use the heating parameters of ginseng to produce ginseng extract with increased inherent ginsenoside components as taught by Kang et al. in the process of Ogawa to produce a health drink comprising ginseng and vinegar with desirable health benefits.

18. Applicant argues that the vinegar in the preparations of Ogawa and Choi is ineffective to extract the desired effective ingredients. It is not clear what effective ingredients applicant is referring to in either Ogawa or Choi.

19. Applicant argues that if the ginseng and vinegar mixture is heated to below 70 degrees, a very small amount of effective ingredient is obtained from the final product.

It is noted that the temperature is not recited in the independent claim. Additionally, Kang teaches heating the extracts to 110-180 degrees yields remarkable increases in the desirable levels of ginsenoside which is a blood vessel relaxant.

20. Applicant also argues that nothing in Kang would suggest the use of vinegar. However, Kang teaches the addition of "watery acetic acid" during the extraction step (page 6). This appears to be a clear teaching of addition of an acetic acid similar to that of vinegar. Since Kang results in the generation of Rg_3 with the use of "watery acetic acid" it is not considered to teach away from combination with Ogawa which uses ginseng extract with vinegar.

21. Applicant argues Ann teaches a method of making ginseng vinegar that is sterile and not concerned with its ginsenoside content. Ann is relied on for the known heating temperature exposure to ginseng vinegar mixture composition. Ann discloses similar materials, such as ginseng and vinegar with similar process of heating temperature and same endpoint time period. Ann teaches fermentation of ginseng solution to make ginseng vinegar. Fermentation is a process of conversion of carbohydrates into alcohols or acids under anaerobic conditions used for making certain foods. Ann does not mention sterilizing step treatment to kill fermentation bacteria to produced vinegar. Kang's reference clearly teaches ginsenoside content in ginseng at specific temperatures and time in acidic solution. One of ordinary skill in the art would have been motivated to optimize Kang's and Ann's heat treatment to produce a desired ginsenoside content in ginseng in Ogawa's vinegar for their known health benefits.

Conclusion

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HONG MEHTA whose telephone number is (571)270-7093. The examiner can normally be reached on Monday thru Thursday, from 7:30 am to 4:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Htm

/Jennifer C. McNeil/
Supervisory Patent Examiner, Art Unit 1784